

- (ii) Energise pressure impulse engine to eject fluid drop
- (iii) De-energise shutter to seal/clean nozzle exit
- (iv) Energise solid state semiconductor laser (or electronic light valve shutter)
- (v) Energise shear action rotation to track eject drop
- 5 (vi) De-energise light valve and shear action laser array rotation to facilitate fly-back to start sequence over.

Preferably, the plurality of droplets comprise at least one droplet of one material and at least one droplet of another material.

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The volume of each droplet is typically between 1 picolitre and 1 microlitre. This enables the final shape of a device to be accurately controlled during the formation thereof, and enables a wide variety of different shapes of devices to be formed.

- 15 The present invention will now be described by way of illustration only and with reference to the accompanying Figures in which:

*BRIEF DESCRIPTION OF THE DRAWINGS*

Figure 1 shows three deposition heads directed towards a coincident drop site on a print surface;

20 Figure 2 shows an array of deposition heads;

Figure 3 shows a cross-sectional view of a deposition head in combination with a UV light source;

Figure 4 shows a cross-sectional view of a resistor;

Figure 5 shows a selection of profiles for a resistor;

25 Figure 6 shows a cross-sectional view of a capacitor;

Figure 7a shows a schematic diagram of an inductor;

Figure 7b shows a cross-section along line A-A in Figure 7a.

Figures 8a and 8b are cross-sectional views of a transistor;

Figure 9a shows a simple circuit for a capacitive sensor;

30 Figure 9b shows a cross-sectional view of a capacitive sensor;

Figure 10 shows a cross-section of a chemotransistor;

Figure 11 shows a cross-section of a solar cell;